

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-37 (Canceled)

Claim 38 (New): A process for treating biological targets in a fluid of a biological organism, comprising introducing a fluid comprising a biological target to an assembly comprising an inlet connected to receive the fluid and an outlet connected to pass the fluid from the assembly, wherein the assembly comprises a flow chamber for conveying a flow of the fluid, a capture zone comprising a target-specific binding agent, and a permeable member arranged between the capture zone and the conduit,

wherein during flow of the fluid through the flow chamber, the biological target permeates through the permeable member to the capture zone.

Claim 39 (New): The process according to claim 38, wherein the capture zone and the permeable member are concentrically arranged with respect to the flow chamber.

Claim 40 (New): The process according to claim 39, wherein the permeable member surrounds the flow chamber, and the capture zone surrounds the permeable member.

Claim 41 (New): The process according to claim 38, wherein the assembly further comprises a second flow chamber and a second permeable member, and the capture zone is

concentrically arranged between the flow chamber and the second flow chamber, the permeable member is concentrically arranged between the flow chamber and the capture zone, and the second permeable member is concentrically arranged between the capture zone and the second flow chamber.

Claim 42 (New): The process according to claim 38, wherein the assembly comprises a plurality of capture zones, a plurality of permeable members, and a plurality of flow chambers.

Claim 43 (New): The process according to claim 38, further comprising removing the biological target from the capture zone through an access port connected to the capture zone.

Claim 44 (New): The process according to claim 38, wherein the capture zone comprises a chemical attractant for attracting the biological target to the capture zone.

Claim 45 (New): The process according to claim 38, further comprising exposing the biological target to an agent for neutralizing the biological target.

Claim 46 (New): The process according to claim 45, further comprising returning the neutralized biological target to the fluid.

Claim 47 (New): The process according to claim 38, further comprising binding the biological target to the binding agent in the capture zone.

Claim 48 (New): The process according to claim 38, wherein the biological target is selected from the group consisting of circulating progenitor cells, stem cells, metastatic cancer cells, human immunodeficiency virus infected cells, viruses, virus infected cells, macrophages, bacteria, bacteria-infected cells, leukocytes, neutrophils, lymphocytes and a combination thereof.

Claim 49 (New): The process according to claim 38, wherein the biological target comprises a stem cell.

Claim 50 (New): The process according to claim 38, further comprising implanting the assembly in a biological organism.

Claim 51 (New): The process according to claim 38, wherein the permeable member comprises a plurality of pores.

Claim 52 (New): The process according to claim 51, wherein the pores have a maximum cross-sectional dimension that is from about 30 to about 120 microns.

Claim 53 (New): The process according to claim 38, further comprising the step of attracting the biological target through the permeable member to the capture zone.

Claim 54 (New): The process according to claim 38, wherein the permeable layer is adapted to selectively pass the biological target.

Claim 55 (New): A process for treating biological targets in a fluid of a biological organism, comprising introducing a fluid comprising a biological target to an assembly comprising an inlet connected to receive the fluid and an outlet connected to pass the fluid from the assembly, wherein the assembly comprises a flow chamber for conveying a flow of the fluid, and a capture zone comprising a target-specific binding agent, wherein during flow of the fluid through the flow chamber, the biological target undergoes flux rolling along the target-specific binding agent.